

ELECTRONIC DETECTION OF BIOLOGICAL MOLECULES USING THIN LAYERS

ABSTRACT OF THE DISCLOSURE

[0202] This invention provides novel sensors that facilitate the detection of essentially any analyte. In general, the biosensors of this invention utilize a binding agent (*e.g.* biomolecule) to specifically bind to one or more target analytes. In preferred embodiments, the biomolecules spans a gap between two electrodes. Binding of the target analyte changes conductivity of the sensor thereby facilitating ready detection of the binding event and thus detection and/or quantitation of the bound analyte. A molecular sensing apparatus comprising,